

From: [Hunt, Jeff](#)
To: [WESTERSUND Joe * DEQ](#)
Cc: [Hedgpeth, Zach](#)
Subject: RE: cost analysis for SCR on natural gas compressor station turbine
Date: Thursday, March 18, 2021 10:37:08 AM
Attachments: [image001.png](#)

Thanks for the invite, Joe. Unfortunately I have a mandatory meeting that conflicts. Have a good discussion with Zach jh

From: WESTERSUND Joe * DEQ <Joe.WESTERSUND@state.or.us>
Sent: Thursday, March 18, 2021 9:34 AM
To: Hunt, Jeff <Hunt.Jeff@epa.gov>
Subject: RE: cost analysis for SCR on natural gas compressor station turbine
[No problem, Jeff. Just sent you an invite.](#)
-Joe

Joe Westersund
Environmental Engineer, Air Program Operations
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite #600
Portland, OR 97232
(503) 229-6403 office
westersund.joe@deq.state.or.us
pronouns: he / him / his
Usual Schedule: 8am - 5pm, M-F

From: Hunt, Jeff <Hunt.Jeff@epa.gov>
Sent: Thursday, March 18, 2021 9:20 AM
To: WESTERSUND Joe * DEQ <Joe.WESTERSUND@state.or.us>
Cc: Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>
Subject: RE: cost analysis for SCR on natural gas compressor station turbine
Thanks, Joe. Yes, I would like to listen in if I don't have any conflicts.

From: WESTERSUND Joe * DEQ <Joe.WESTERSUND@state.or.us>
Sent: Thursday, March 18, 2021 8:20 AM
To: Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>
Cc: ORMAN Michael * DEQ <Michael.ORMAN@state.or.us>; WEST Walt * DEQ <Walt.WEST@state.or.us>; Hunt, Jeff <Hunt.Jeff@epa.gov>
Subject: RE: cost analysis for SCR on natural gas compressor station turbine
[Sounds great, Zach. I'll send an invite for 3/24.](#)
[Walt, I'll include you as well. Michael and Jeff, let me know if you'd also like to be on the call.](#)
-Joe

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From: Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>
Sent: Thursday, March 18, 2021 6:54 AM

To: WESTERSUND Joe * DEQ <Joe.WESTERSUND@state.or.us>

Cc: ORMAN Michael * DEQ <Michael.ORMAN@state.or.us>; WEST Walt * DEQ <Walt.WEST@state.or.us>; Hunt, Jeff <Hunt.Jeff@epa.gov>

Subject: RE: cost analysis for SCR on natural gas compressor station turbine

Hi Joe,

I would be happy to take a look. Given what I have on my plate over the next few days, it's unlikely I'll be able to provide much in the way of written comments by next Wed, so I think the most efficient method for me to give you feedback would be verbally. I'd suggest we have a call next Wed 3/24 to discuss. My calendar is currently free that day anytime before 2:30 pm, except between 9-10 am.

Thanks,

Zach Hedgpeth, PE

206-553-1217

Pronouns: he/him/his

From: WESTERSUND Joe * DEQ <Joe.WESTERSUND@state.or.us>

Sent: Wednesday, March 17, 2021 4:58 PM

To: Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>

Cc: ORMAN Michael * DEQ <Michael.ORMAN@state.or.us>; WEST Walt * DEQ <Walt.WEST@state.or.us>

Subject: cost analysis for SCR on natural gas compressor station turbine

Hi Zach,

We recently received some new cost analysis information from Gas Transmission NW. They have two natural gas compressor stations in Oregon that are part of the 4FA process, and for which we'd identified SCR as potentially cost effective. This is a cost estimate based on a vendor quote for one of those (turbine 12-B).

A question I had for you- do you have any comments about this cost estimate? I'm looking especially at the **direct and indirect annual costs** and whether those are higher than what's reasonable.

Thank you for any comments you have time to offer. Our next meeting with the company is next Thursday (3/25), so comments would be most helpful to us if received by next Wednesday.

-Joe

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Environmental Engineer, Air Program Operations
Oregon Department of Environmental Quality
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Portland, OR 97232
(503) 229-6403 office
westersund.joe@deq.state.or.us
pronouns: he / him / his
Usual Schedule: 8am - 5pm, M-F

From: ORMAN Michael * DEQ <michael.orman@deq.state.or.us>

Sent: Wednesday, March 17, 2021 8:34 AM

To: WESTERSUND Joe * DEQ <joe.westersund@deq.state.or.us>

Subject: FW: Regional Haze - GTN

From: Melinda Holdsworth <melinda_holdsworth@tcenergy.com>

Sent: Monday, March 15, 2021 11:39 AM

To: ORMAN Michael * DEQ <michael.orman@deq.state.or.us>

Cc: Ruth Jensen <ruth_jensen@tcenergy.com>; Jim McCarthy - IES (jamesmccarthy@comcast.net) <jamesmccarthy@comcast.net>

Subject: Regional Haze - GTN

Michael,

Attached are the following:

- Updated cost for Unit 12B, including differences from last submittal,
- Vendor quotes that updated cost are based on and
- Memo detailing SCR performance in natural gas turbine applications.

GTN is looking forward to discussing with you on Wednesday.

Thanks,

Mel Holdsworth

US Environment – Compliance

Direct: 832-320-5665

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700 Louisiana St., Ste. 700

Houston, TX 77002

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Thank you